# Nathaniel Rogers

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## Education

**Arizona State University** — August 2020 - May 2024
*Bachelor of Science in Earth and Space Exploration – Astrophysics* — *Tempe, Arizona*
- **Relevant Coursework:** Exploration Systems Engineering, Project Approaches, Project Leadership, Coding for Exploration, Programming for Physicists, Astrophysics I & II

## Experience

**Wells Fargo Bank** — October 2024 – Present
*Associate Loan Funding Processor* — *Chandler, Arizona*
- Support Wells Fargo Home Mortgage by processing and validating mortgage documents and perform multiple moderately complex operational tasks relating to the mortgage closing and funding process.
- Oversee the transfer of funds from the lender (Wells Fargo) to escrow companies.
- Interact with internal and external clients and collaborate with peers, colleagues and managers to resolve issues and achieve goals.

**Mesa Golfland Sunsplash** — March 2018 – July 2024
*Aquatics Manager: Maintenance Safety Officer* — *Mesa, Arizona*
- Acted as manager on duty, overseeing staffing of the entire water park, monitored and adjusted pool chemistry, and ensured proper operations of all water park attractions.
- Instructed and certified lifeguards to perform at a high level. Lifeguards I certified went on to achieve gold certificates in aquatic safety.
- Effective leader overseeing teams of 5-10 lifeguards, ensuring safety of guests and guards at a high level. Maintained standards of vigilance and work efficiency among guards.
- Implemented and maintained a database to track audits and safety training, focusing on data entry and implementing remediation plans.

## Projects

**SESE Senior Exploration Capstone** | *CATIA, Cameo Systems Modeler, Model Based Systems Design, MBSE, Python, Jython,*
- Processed and analyzed large thermal dataset in Python. Used graphical and analytic packages to identify trends and potential anomalies in telemetry data.
- Imported equations generated by Python script into CAMEO Systems Modeler to create a basic thermal model of the satellite.
- Identified potential thermal anomalies and risk factors using the basic model built. This framework could be used to ensure the success of Cubesat missions before launch.

**Space Works II** | *Siemens NX CAD software, Microsoft Projects, Circuits, Python, Arduino*
- Designed and built an infrared instrument that was required to work in space like conditions. Instrument was built around pre-existing sensor, the instrument body, shutter mechanism, and software were custom.
- Worked as the project manager and lead design officer. Designed the instrument body, shutter mechanism, and internal structure in Siemens NX. Printed and assembled components.
- Completed system captured 30 images of a thermal Target while under 5 torr. Processed collected data in python to generate heat map, and verify temperature of thermal target was measured to be within +- 2.5 degrees accuracy.

## Technical Skills

**Languages**: Python, LaTeX, MATLAB, Mathmatica, SQL
**Technologies**: Excel, Projects, Power BI, Numpy, Matplotlib, Pandas, CAMEO Systems Modeler, CAITA, Siemens NX CAD, macOS, Windows, Linux (Debian, Red Hat), Illustrator, Photoshop, Lightroom
**Concepts**: Astrodynamics, Mechanics, Project Management, Concept of Operations, Design Review, System Architecture, System Hierarchy, EDS lab safety, Collaboration and Communication, Agile Approaches, Traditional Waterfall Project Approach, Hybrid Approaches